

REMARKS

The Office Action dated December 20, 2004, has been received and carefully noted. The above claim amendments, and the following remarks, are submitted as a full and complete response thereto. Claims 1, 14, and 28 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added, and no new issues are raised which require further consideration or search. Claims 1-38 are currently pending in the application and are respectfully submitted for consideration.

Claims 1-12, 14, and 16-38 were rejected under 35 U.S.C. 102(b) as being anticipated by Beuk (U.S. Patent No. 5,774,673). The rejection is respectfully traversed for the reasons which follow.

Claim 1, upon which claims 2-13 and 33-34 are dependent, recites a method for controlling data flow across a link. The method includes the steps of transmitting a packet request message from a first station to a second station, determining if the packet request message is valid, transmitting a request acknowledge message from the second station to the first station, and determining if the request acknowledge message is valid. The packet request message and the request acknowledge message each include a control bit string, an identification bit string, and at least one parity bit. The control bit string identifies whether a frame is a control frame or a data frame.

Claim 14, upon which claims 15-27 and 35-36 are dependent, recites a data flow control method for controlling data transmitted across a high speed link. The method includes the step of transmitting a packet request message from a first station to a second

station, said packet request message having a first identification number, a first control code group, and a first parity parameter associated therewith. The method further includes the step of storing the first identification number associated with the packet request message. The method also includes the step of transmitting a request acknowledge message from said second station to said first station, said request acknowledge message having a second identification number, a second control group, and a second parity parameter associated therewith. The method further includes the steps of determining if the first and second control groups are valid, determining if the second identification number matches the first identification number, and determining if the first and second parity parameters are valid. The first control group and the second control group are configured to identify whether a frame is a control frame or a data frame.

Claim 28, upon which claims 29-32 and 37-38 are dependent, recites an apparatus for controlling data flow across a link. The apparatus includes a first transmitting unit for transmitting a packet request message from a first station to a second station, said packet request message including a first identification number, a first control code group, and a first parity parameter associated therewith. The apparatus also includes a storage unit for storing the first identification number associated with the packet request message, and a second transmitting unit for transmitting a request acknowledge message from said second station to said first station, said request acknowledge message having second identification number, a second control group, and a second parity parameter associated therewith. The apparatus further includes at least one flow logic unit for determining if

the first and second control groups are valid, determining if the second identification number matches the first identification number, and determining if the first and second parity parameters are valid. The first control group and the second control group are configured to identify whether a frame is a control frame or a data frame.

The cited prior art reference of Beuk fails to disclose or suggest the elements of the claims, and therefore fails to provide the features discussed above.

Beuk discloses a system for communicating between a dynamic group of apparatuses. The system allows an apparatus to establish communication between a local application and applications in other apparatuses. An active activation unit invites applications in other apparatuses to join by using a message sending unit to transmit a broadcast frame to all apparatuses which requests activation of the selected application. The broadcast frame specifies which application is being activated. The active activation unit then determines a communication channel which corresponds to the application and the selected application, which is stored in storage, is executed by an execution unit. The broadcast frame is received by a message receiving unit in other apparatuses. A passive activation unit verifies whether the receiving apparatus has an application, which corresponds to the specified application and whether such an application needs to be activated (Col. 1, line 57 – Col. 3, line 25).

Beuk fails to disclose or suggest all of the elements of claim 1. Claim 1 recites, in part, “wherein the packet request message and the request acknowledge message each include a control bit string, an identification bit string, and at least one parity bit, said control bit string identifying whether a frame is a control frame or a data frame.” The

Office Action took the position that a control bit string is anticipated by the special header field (HDR) disclosed in Beuk. The Office Action further took the position that the identification bit string is anticipated by the channel fields in Beuk. Applicants respectfully disagree.

The HDR field disclosed by Beuk does not correspond to the control bit string of the claimed invention. Beuk discloses that “to simplify clock-synchronization of the receiving circuit and the detection of the beginning of a frame, a frame may additionally start with a special header field (HDR), such as a special bi-phase encoded pattern” (Beuk, Col. 11, lines 62-66). The control bit string recited in the claimed invention, on the other hand, identifies whether this is a control frame or a data frame. The control bit is set to 1 for control Frame and is set to 0 for data frame (Specification, page 100). Beuk fails to disclose that the special header field (HDR) identifies whether the frame is a control or data frame. Therefore, Beuk does not disclose or suggest a control bit string.

Additionally, the channel field disclosed by Beuk does not correspond to the identification bit string of the claimed invention. Beuk discloses that “the group frame also comprises a channel field for identifying a communication channel. The channel field may, for instance, be one byte large, allowing for a maximum of 256 different channels. The message sending means only transmits a group frame if the channel field specifies a channel which has been locally activated” (Beuk, Col. 11, line 67 – Col. 12, line 7). The identification bit string recited in the claimed invention, however, is used to identify and correlate specific request messages with corresponding acknowledgement

messages (Specification, page 108). The channel field does not serve such a purpose, and thus the identification bit string is not anticipated by the channel field taught by Beuk.

Furthermore, the claimed invention recites that both the packet request message and the request acknowledge message include at least one parity bit. Beuk only discloses that the activation request message may include a parity bit. Beuk discloses that the message receiving means verifies whether the activation request message has been received correctly, and one method for doing this is to check whether the parity matches parity bits comprised in the message frame (Beuk, Col. 13, lines 20-30). Consequently, Beuk does not disclose that both the packet request message and the request acknowledge message include at least one parity bit.

It is respectfully submitted that claims 2-13 and 33-34 depend from claim 1 and therefore should be found allowable for at least their dependence on claim 1, and for the specific limitations recited therein.

Claim 14 contains similar limitations to those recited in claim 1. Specifically, claim 14 recites that the packet request message and request acknowledge message have an identification number, control code group, and parity parameter. Claim 14 further recites that the control groups are configured to identify whether a frame is a control frame or a data frame. As discussed above with respect to claim 1, Beuk fails to anticipate an identification bit string (identification number), a control bit string (control code group), and also fails to disclose a parity bit in the request acknowledge message. Therefore, similar to claim 1, Beuk fails to disclose or suggest all of the elements of claim 14.

Applicants respectfully submit that claims 15-27 and 35-36 depend from claim 14 and therefore should be found allowable for at least their dependence on claim 14, and for the specific limitations recited therein.

Claim 28 contains similar limitations to those recited in claims 1 and 14. As discussed above, Beuk fails to disclose an identification number, control code group, or a parity bit in the request acknowledge message. Consequently, Beuk fails to disclose or suggest all of the elements of claim 28.

It is respectfully submitted that claims 29-32 and 37-38 depend from claim 28 and therefore should be found allowable for at least their dependence on claim 28, and for the specific limitations recited therein.

Claims 13 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Beuk in view of Meyer (U.S. Patent No. 6,611,495). The Office Action took the position that Beuk teaches all of the elements of claims 13 and 15, with the exception of the starting of a timer upon transmission of a packet request message and retransmitting the message if a predetermined period of time has passed. The Office Action then relies upon Meyer to cure the deficiency in Beuk. The rejection is respectfully traversed for the reasons which follow.

Meyer discloses a system and method for improved data transfer in packet-switched communication networks. A sender receives an acknowledgement message indicating that the intended recipient received a data packet, and a retransmission timer is initialized with a value that compensates for the time lag between the transmission of a data packet by the sender and the receipt of an acknowledgement message.

Applicants note that claim 13 is dependent upon claim 1, while claim 15 is dependent upon claim 14. The cited reference of Meyer fails to cure the deficiencies in Beuk with respect to claims 1 and 14 discussed above. Therefore, claims 13 and 15 should be found allowable for at least their dependence upon claims 1 and 14, respectively, and the specific limitations recited therein.

Applicants respectfully submit that Beuk and Meyer, whether taken alone or in combination, fail to disclose or suggest critical and important elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-38 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



Majid S. AlBassam
Registration No. 54,749

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

MSA:mmi